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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,793	12/12/2003	Aseem Agrawal	JP920030161US1	3462

7590 12/07/2007
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EXAMINER

HOAR, COLLEEN A

ART UNIT	PAPER NUMBER
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4172

MAIL DATE	DELIVERY MODE
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12/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/734,793	Applicant(s) AGRAWAL ET AL.	
	Examiner COLLEEN HOAR	Art Unit 4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-17 are examined.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6-7, 9, 12-17, rejected under 35 U.S.C. 102(b) as being anticipated by Katz et al., (6055513).

As per Claim 1

Katz et al ('513) discloses:

A method for targeting customers comprising the steps of:

- receiving a customer request on a channel; (Col 8, lines 46-53: Col 9, lines 41-42)
- forming an integrated belief profile for said requesting customer for a set of channel types; (Col 10, lines 46-53)
- executing said request to give a response; (Col 8, lines 53-54)
- generating a promotion on the basis of said integrated belief profile; and (Col 8, lines 57-61)
- providing said response and said promotion to said requesting customer. (Col 8, 61-62)

As per Claim 4

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Katz et al ('513) discloses:

The method of claim 1, wherein said promotion is generated according to a set of predetermined rules. (Col 9, lines 1-5) Katz et al refers to determining means for generating promotions or upsells.

As per Claim 6

Katz et al ('513) discloses:

The method of claim 1, further comprising the step of identifying the channel upon which the request is made, and wherein said response and said promotion is provided on said identified channel type. (Col 26, lines 38-48) Offers are made via website, live operator, telemarketer)

As per Claim 7

Katz et al ('513) discloses:

The method of claim 1, wherein said receiving step further includes converting a format of the requesting channel to a common format, and wherein said providing step back-converts said response and said promotion to the format of the customer request. (Col 11, lines 46-55) The presentation of the data is based in part upon the communication between the user and the system.

As per Claim 9

Katz et al ('513) discloses:

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A data processing system for targeting customers comprising:

- an interface for receiving a customer request on a channel; (Col 31, lines 40-44)
- a data processor for forming an integrated belief profile for said requesting customer for a set of channel types, executing said request to give a response, and generating a promotion on the basis of said integrated belief profile; and (Col 31, lines 53-59)
- wherein said interface provides said response and said promotion to said requesting customer. (Col 31, lines 60-63)

As per claim 12

Katz et al. ('513) discloses:

The data processing system of claim 11, wherein said processor generates said promotion according to a set of predetermined rules stored in a memory. (Col 31, lines 53-59; Col 33, lines 28-31)

As per claim 13

Katz et al. ('513) discloses:

The data processing system of claim 10, wherein said processor generates a promotion also based on said customer beliefs for the respective channel. (Col 33, lines 21-27)

As per claim 14

Katz et al. ('513) discloses:

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The data processing system of claim 9, wherein said processor further identifies the channel upon which the request is made, and wherein said response and said promotion is provided by said interface on said identified channel type. (Col 32, lines 23-25, 30-32)

As per claim 15

Katz et al. ('513) discloses:

The data processing system of claim 9, wherein said interface converts format of the requesting channel to a common format, and back-converts said response and said promotion to the format of the customer request. (Col 33, lines 56-57)

As per claim 16

Katz et al. ('513) discloses:

The data processing system of claim 9, further comprising a memory for accumulating said set of beliefs for customers over multiple user sessions such that said integrated belief profile is incrementally updated. (Col 34, lines 10-12)

As per Claim 17

Katz et al. ('513) discloses:

A computer program product for targeting customers, comprising a computer program held on a storage medium, the computer program including:

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- a code element for receiving a customer request on a channel; (Col 20, lines 54-58)
- a code element for forming an integrated belief profile for said requesting customer for a set of channel types; (Col 20, lines 27-32)
- a code element for executing said request to give a response; (Col 20 lines 59-62)
- a code element for generating a promotion on the basis of said integrated belief profile; and (Col 20, lines 27-32)
- a code element for providing said response and said promotion to said requesting customer.(Col 21, lines 1-9)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 5, 8, 10-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (6055513), and further in view of Reiser et al. (6125339).

Claims 2-3, 5, 8, 10-11: Katz (Col 20, lines 23-62) discloses an upsell method, system, apparatus and program which allows for decisional processes using linear programming, expert systems, fuzzy logic, neural networks, adaptive systems and other decisional systems known in the art. Further, these processes use data from multiple databases including chronological data, demographics, profile, identification, credit, inventory, billing, telemarketing, history, marketing and campaign data. Katz does not explicitly mention Dempster Orthogonal Sum belief processes, however, this approach is a basic probability assignment process which is covered by the Katz description. Reiser (Col 2, lines 6-23) teaches the Dempster-Schafer belief process,- a method of fuzzy logic for automatically learning belief functions "including the steps of gathering information representative of an object or event; creating a set of basic probability assignments based on said set of information; creating combinations of said basic probability assignments; measuring an error present in said basic probability

assignments and said combinations of basic probability assignments; calculating updates of said basic probability assignments and said combinations of basic probability assignments based on said error; and modifying said basic probability assignments and said combinations of basic probability assignments with said updates.” The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 2

Reiser et al. (339) teaches:

The method of claim 1, comprising the further step of identifying the customer making the request, and wherein said step of forming an integrated belief profile includes:

- generating a set of beliefs for said customer for said set of channels; and (Col 3, lines 12-14)
- generating said integrated belief profile from a respective said set of beliefs. (Col 2, lines 51-53)

The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability

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assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 3

Reiser et al. ('339) teaches:

The method of claim 2, wherein a normalized Dempster Orthogonal Sum of said set of beliefs is formed to give said integrated belief profile. (Col 4, lines 51-67) Reiser forms belief targets based on information from different sources. The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 5

Reiser et al. ('339) teaches:

The method of claim 2, wherein the step of generating a promotion is also based on said customer beliefs for the respective channel. (Col 4, lines 51-67) Reiser forms belief targets based on information from different sources. The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to

better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 8

Katz et al. ('513) discloses

Reiser et al. ('339) teaches:

The method of claim 1, comprising the further step of accumulating said set of beliefs for customers over multiple user sessions such that said integrated belief profile is incrementally updated. (Katz Col 25, lines 40-44); (Reiser Col 2, lines 18-22) The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 10

Katz et al. ('513) discloses

Reiser et al. ('339) teaches:

The data processing system of claim 9, wherein said processor identifies the customer making the request, and generates a set of beliefs for said customer for said set of channels, and generates said integrated belief profile from a respective said set of beliefs. (Katz Col 31, lines 45-49; Col 33, lines 21-27); (Reiser Col 5, lines 27-52; Col 6,

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lines 1-16) The apparatus generates beliefs of target. The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

As per Claim 11

Reiser et al. ('339) teaches:

The data processing system of claim 10, wherein said processor calculates a normalized Dempster Orthogonal Sum of said set of beliefs to give said integrated belief profile. (Col 5, lines 27-52; Col 6, lines 1-16) The apparatus generates beliefs of target. The Katz invention allows for the Reiser invention to be a part of the Katz invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Katz to use the Dempster-Shafer basic probability assignment method in order to better predict the accuracy of a customer accepting a promotion and selecting the appropriate promotion for that to happen.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Basak et al. (2006/0143079) discloses across-channel customer matching
- b. Mahler (5748852) discloses a Dempster-Shafer matching process
- c. Kang et al. (6338051) discloses a fuzzy logic method for matching music to customer preferences.
- d. Horowitz et al. (6349290) discloses an automated method for presenting products and inducement to financial customers using multiple variables.
- e. Brewer et al. (6886037) discloses a channel director for cross channel customer interactions
- f. Elderling (7062510) discloses a consumer profiling and advertisement selection system
- g. Bernstein (2002/0107730) discloses a method and apparatus for identifying customers delivery of promotional materials.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLLEEN HOAR whose telephone number is (571)270-3447. The examiner can normally be reached on Monday- Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dixon can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas A Dixon/
Supervisory Patent Examiner, Art Unit 4172

Colleen Hoar
Examiner
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/C. H./